REMARKS

Reconsideration and allowance of this application are respectfully requested in view of the amendment and the discussion below.

In response to the objection and the rejection of claims 9 and 10, Applicants have made the appropriate amendments in order to insert "compound electrode includes a cylindrical inner" which was inadvertently omitted from the previous Amendment. Furthermore, Applicants have deleted "and enclosing at least one end of" in order to eliminate the rejection under 35 U.S.C. 112, first paragraph.

Claims 1-6 have been rejected under the judicially created doctrine of obviousness-type double patenting as unpatentable over claims 1, 3, 16 and 19 of U.S. Patent No. 6,475,653 in view of Takahashi U.S. Patent No. 4,515,674. Claims 1, 4, 6 and 7 have also been rejected under 35 U.S.C. 103 as unpatentable over Gomez WO 99/12220 in view of Takahashi 4,515,674. It is noted that U.S. Patent No. 6,475,653 corresponds to WO 99/12220.

Independent claim 1 differs from Gomez '653 with respect to either of the claims 1, 3, 16 and 19 or the specification by the limitation that the outer electrode encloses at least one end of the inner electrode. This is acknowledged at item 10 on page 4 of the Patent Office Action. The newly cited reference to Takahashi has been indicated at having an inner electrode piece within the outer electrode piece and that it would have been obvious to have adapted the compound electrode of the claims of the '653 patent to have an outer electrode

piece completely enclosing at least one end of the inner electrode piece. This statement of the rejection applies either with respect to the rejection under double patenting or under 35 U.S.C. 103.

Applicants submit that the reference to Takahashi adds nothing toward meeting the claim limitations of independent claim 1. Takahashi is addressed to a single electrode for electrode deposition coating by employing a cylindrical body with one end enclosed and being made of a sintered metal oxide of a particular composition of FeO with metal member inserted into the cylindrical body and bonded by conductive material. The rejection makes reference to column 10, lines 39-56 and Figures 4 and 5. Takahashi is a bar of stainless steel 11a with a terminal 1a and the shank of the bar is covered by tube 4a of sintered mass of metal oxide using an adhesive 13. Because of the stainless steel there is no possibility that the sintered mass 4a would shed metal ions. It is submitted that there is no indication that there are two electrodes in Takahashi '674. It is to be noted that lines 46 and 47 refer to "this electrode" indicating that there is but a single electrode and furthermore line 39 refers to representing "an electrode".

Therefore it is submitted that even if the references were combined there is no indication that an outer electrode would enclose one end of an inner electrode as is required by independent claim 1.

Thus claims 1-6 are not properly rejected under the judicially created doctrine of obviousness-type double patenting over the claims 1, 3, 16 and 19 and additionally claims 1, 4, 6 and 7 patentable define over Gomez in view of

Takahashi '674. With respect to the rejection of claim 7, Applicants submit that claim 7 also defines that the inner electrically conductor electrode is contained in an having at least one end enclosed by an outer electrically conductor electrode.

Dependent claims 2-6 depend from and contain all of the limitations of independent claim 1 and even accepting the statement of the Examiner for the showing of the secondary reference to Meyers et al., these claims are also submitted as being allowable as Meyers et al. adds nothing toward meeting the claim limitations of independent claim 1.

Claim 8 was rejected over the combination of Gomez and Takahashi and further in view of Mekjean et al. with an indication being given that neither Gomez nor Takahashi teach using the compound electrode in a unipolar activation cell and that the secondary reference to Mekjean et al. also does not teach that the apparatus is a unipolar type however it would have been obvious to modify the apparatus of Mekjean et al., according to the rejection, by separating the anode and cathode cell in order to produce charged anolyte catholyte. Still further, it is indicated that it would have been obvious to use the electrode of Gomez in view of Takahashi in the cell of Mekjean et al. because the composite electrodes provide the best power output.

Applicants traverse this rejection on the grounds that the references, whether alone or combined do not teach the required structure for enclosing the inner electrode within the outer electrode for a unipolar device, as claimed.

Claims 1, 4 and 6 have also been rejected under 35 U.S.C. 103 as unpatenable over Mazanec et al. to in view of Takahashi. The rejection refers to Figures 9 and 10 and column 17 of Mazanec et al. for a showing of a composite electrode with an inner electrode 52 and an outer electrode 53 with a electrically conductive material 51 between them. Applicants submit that the core 51 of Mazanec et al. is coated with an electrically conductive material 53 on one side and with an electrical conductive metal on the other side but that the core itself is a multi-component membrane or a solid electrolyte. Therefore there is no compound electrode system but instead a flow reaction electrode where one reactant is flowed outside the electrode and another is flowed through the central portion 54. This kind of electrode functions for gases at high temperatures as has been indicated before but would not function in the present invention because the same electrolyte is available through the inner and outer surface of the electrode. It is therefore not the defined compound electrode of independent claim 1.

Applicants also submit that claim 9, which is now in a proper form to meet the requirements of 35 U.S.C. 112, also recites that there is an electrically conductive material sandwiched between the inner electrode and the outer electrode and that there is anode cell within the cylindrical inner electrode whereas the reference to Mazanec et al. have the outer coating 53 as the anode of the cell.

It is for these reasons that Applicants invention defines over Mazanec et al. and the resulting operation of Mazanec et al. clearly shows that the distinguishing features between the claimed invention and the references are not obvious to one of ordinary skill in the art. As indicated previously, the reference to Takahashi has but a single covered electrode and no teaching of Takahashi is useful with any of the primary references including the primary reference to Mazanec et al.

Therefore in view of the distinguishing features between the claimed invention and the references which features are not shown or disclosed or made obvious by the references or their combinations, Applicants respectfully request that this application containing claims 1-10 be passed and be passed to issue.

If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #056284.50645US).

Respectfully submitted,

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